

CROSS-FILE INLINING BY USING SUMMARIES AND GLOBAL WORKLIST

ABSTRACT OF THE DISCLOSURE

- 5 One embodiment disclosed relates to a method of compiling a computer program. A plurality of modules of source code is received, and intermediate representations corresponding to the modules are generated. A set of data from the intermediate representations is extracted to create an inliner summary for each module. Using the inliner summaries and a globally-sorted
- 10 working-list based order, an inline analysis phase determines which call sites in the modules are to be inlined by substituting code from a called module. The propagation of summaries may be done elaborately, potentially throughout the call-graph. The goodness of call sites may be computed with a view to comparing them and ordering them in a descending order of goodness.
- 15 Applicants believe the compile-time effectiveness lies in the ability to work consistently with summary information in the inline analysis phase without having to touch the intermediate representation, while maintaining a high degree of run-time performance by continuously updating the summary information.